

**Commonwealth of Kentucky  
Energy and Environment Cabinet  
Department for Environmental Protection  
Division for Air Quality  
200 Fair Oaks Lane, 1<sup>st</sup> Floor  
Frankfort, Kentucky 40601  
(502) 564-3999**

**AIR QUALITY PERMIT  
Issued under 401 KAR 52:040**

**Permittee Name:** KY Department of Corrections  
**Mailing Address:** P.O. Box 2400, Frankfort, KY 40602

**Source Name:** Bell County Forestry Camp  
**Mailing Address:** Route 2, Box 75  
Pineville, KY 40977

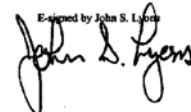
**Source Location:** near Chenoa Lake

**Permit ID:** S-08-118  
**Agency Interest #:** 107  
**Activity ID:** APE20080002  
**Review Type:** Minor Source, Operating  
**Source ID:** 21-013-00091

**Regional Office:** London Regional Office  
875 S. Main Street  
London, KY 40741  
(606) 330-2080

**County:** Bell

**Application**  
**Complete Date:** November 14, 2008  
**Issuance Date:** November 5, 2008  
**Revision Date:**  
**Expiration Date:** November 5, 2018

Designed by John S. Lyons  


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**John S. Lyons, Director  
Division for Air Quality**

## **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:040, State-origin permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining other permits, licenses, or approvals that may be required by the Cabinet or other federal, state, or local agencies.

## **SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

### **Emission Unit 01**

### **Six (6) Diesel – Fired Emergency Generators**

#### **Description:**

Generator 1

Model: Olympian 98A01033-Sm 2040275

Year Constructed: 1997

Fuel Input: 6 gal/hr

Generator 2

Model: Koehler 15ROZ 0648646

Year Constructed: 1999

Fuel Input: 3 gal/hr

Generator 3

Model: Koehler 431PSL1814 LM230572-0199

Year Constructed: 2000

Fuel Input: 37 gal/hr

Generator 4

Model: Acoustic Suppression

Year Constructed: 1989

Fuel Input: 65 gal/hr

Generator 5

Model: Caterpillar 3306 7YR03140

Year Constructed: 2004

Fuel Input: 50 gal/hr

Generator 7

Model: Caterpillar 98A01033-5 2040276

Year Constructed: 2000

Fuel Input: 6 gal/hr

#### **APPLICABLE REGULATIONS:**

None

#### **NON-APPLICABLE REGULATIONS**

40 CFR 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CIICE), commencing construction (order placed date) after July 11, 2005 and manufactured after April 1, 2006.

#### **1. Operating Limitations:**

None

#### **2. Emission Limitations:**

None

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**3. Testing Requirements:**

None

**4. Monitoring Requirements:**

Pursuant to 401 KAR 52:040 Section 23, the fuel consumption and operating hours for each engine shall be monitored on a monthly basis.

**5. Recordkeeping Requirements:**

Pursuant to 401 KAR 52:040 Section 23, the permittee shall maintain records of the monthly fuel consumption and operating hours for each engine and total them in any consecutive twelve (12) months.

**6. Reporting Requirements:**

See Section C, General Requirements.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Emission Unit 02**

### **One Diesel – Fired Emergency Generator**

#### **Description:**

Generator 6  
Model: Koehler 80ROZJ 0661341  
Year Constructed: 2006  
Fuel Input: 48 gal/hr

#### **APPLICABLE REGULATIONS:**

40 CFR 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE), commencing construction (order placed date) after July 11, 2005 and manufactured after April 1, 2006.

#### **1. Operating Limitations:**

- a) Pursuant to 40 CFR 60.4207, diesel fuel used must meet the per-gallon requirements of 40 CFR 80.510(a): 1) Sulfur content. 500 parts per million (ppm) maximum.(2) Cetane index or aromatic content, as follows:(i) A minimum cetane index of 40; or (ii) A maximum aromatic content of 35 volume percent.
- b) Pursuant to 40 CFR 60.4207, beginning October 1, 2010, diesel fuel used must meet the per-gallon requirements of 40 CFR 80.510(b): (1) Sulfur content.(i) 15 ppm maximum for NR diesel fuel.(ii) 500 ppm maximum for LM diesel fuel. (2) Cetane index or aromatic content, as follows:(i) A minimum cetane index of 40; or (ii) A maximum aromatic content of 35 volume percent.
- c) Pursuant to 40 CFR 60.4211, the engine must have been certified by the manufacturer according to 40 CFR parts 89 or 94, and the engine must be installed and configured according to the manufacturer's specifications. If the engine has not been certified, the operator must demonstrate compliance according to one of the methods specified in 40 CFR 60.4211(b)(1) through (b)(5).

#### **2. Emission Limitations:**

- a) Pursuant to 40 CFR 60.4205, the emissions limit for hydrocarbons is 1.0 gram/bhp-hr.
- b) Pursuant to 40 CFR 60.4205, the emissions limit for Nitrogen dioxide is 6.9 gram/bhp-hr.
- c) Pursuant to 40 CFR 60.4205, the emissions limit for Carbon Monoxide is 8.5 gram/bhp-hr.
- d) Pursuant to 40 CFR 60.4205, the emissions limit for Particulate Matter is 0.4 gram/bhp-hr.

#### **3. Testing Requirements:**

None

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **4. Monitoring Requirements:**

- a) Pursuant to 40 CFR 60.4209, the unit must be equipped with a non-resettable hour meter prior to startup of the engine.
- b) Pursuant to 401 KAR 52:040 Section 23, the fuel consumption and operating hours for each engine shall be monitored on a monthly basis.

### **5. Recordkeeping Requirements:**

Pursuant to 401 KAR 52:040 Section 23, the permittee shall maintain records of the monthly fuel consumption and operating hours for each engine and total them in any consecutive twelve (12) months.

### **6. Reporting Requirements:**

See Section C, General Requirements.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

### **Emission Unit 03**

### **Propane Fired Boiler**

#### **Description:**

Year Constructed: 2002

Rated Heat Capacity: 1.63MMBtu/hr

#### **Applicable Regulations:**

401 KAR 59:015. New Indirect Heat Exchangers, applicable to indirect heat exchangers having a heat input capacity of more than 1 MMBtu/hr but less than 250 MMBtu/hr and constructed after April 9, 1972.

#### **1. Operating Limitations:**

None

#### **2. Emission Limitations:**

- a) Pursuant to 401 KAR 59:015 Section 4(1)(a), particulate emissions from the stack shall not exceed 0.56 lb/MMBtu, each based on a three-hour-average.
- b) Pursuant to 401 KAR 59:015, Section 4(2), emissions shall not exceed 20% opacity based on a six-minute average, except a maximum of 40% opacity, based on six minutes average, shall be permissible for not more than 6 consecutive minutes in any consecutive 60 minutes during cleaning the fire-box or blowing soot.
- c) Pursuant to 401 KAR 59:015, Section 4(2)(c), emissions shall not exceed 20 % opacity based on a six minute average, except for emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating condition, provided the method used is the recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
- d) Pursuant to 401 KAR 59:015 Section 5(1)(a), sulfur dioxide emissions from the stack shall not exceed 3.0 lb/MMBtu, based on a twenty four hour-average.

#### **3. Testing Requirements:**

None

#### **4. Monitoring Requirements:**

Pursuant to 401 KAR 52:020, Section 26, the permittee shall perform a qualitative visual observation of the opacity emissions from the stack on a weekly basis and maintain a log of the observations. If visible emissions from the stack are seen, then the opacity shall be determined by EPA Reference Method 9 and if the opacity reading is greater than 20 percent, then the permittee must initiate an inspection of the equipment for any repairs.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**5. Recordkeeping Requirements:**

See Section C.2.

**6. Reporting Requirements:**

See Section C.3.



## SECTION C - GENERAL CONDITIONS

### 1. Administrative Requirements

- a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:040, Section 3(1)(b) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.
- b. This permit shall remain in effect for a fixed term of ten (10) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 52:040, Section 15.
- c. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-11 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- d. Pursuant to materials incorporated by reference by 401 KAR 52:040, this permit may be revised, revoked, reopened, reissued, or terminated for cause. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance shall not stay any permit condition [Section 1a-4, 5, of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- e. This permit does not convey property rights or exclusive privileges [Section 1a-8 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- f. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:040 Section 11(3)].
- g. All previously issued permits to this source at this location are hereby null and void.

**SECTION C - GENERAL CONDITIONS (CONTINUED)****2. Recordkeeping Requirements**

- a. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of at least five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:040 Section 3(1)(f) and Section 1b-IV-2 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- b. The permittee shall perform compliance certification and recordkeeping sufficient to assure compliance with the terms and conditions of the permit. Documents, including reports, shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

**3. Reporting Requirements**

- a. (1) In accordance with the provisions of 401 KAR 50:055, Section 1, the permittee shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - i. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - ii. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
- (2) The permittee shall promptly report deviations from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Reporting Requirement condition a.(1) above), the probable cause of the deviation, and corrective or preventive measures taken; to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report [Section 1b-V-3 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- b. The permittee shall furnish information requested by the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the permit [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- c. Summary reports of monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation. The summary reports

**SECTION C - GENERAL CONDITIONS (CONTINUED)**

are due January 30th and July 30th of each year. All deviations from permit requirements shall be clearly identified in the reports. All reports shall be certified by a responsible official pursuant to 401 KAR 52:040, Section 21.

**4. Inspections**

In accordance with the requirements of 401 KAR 52:040, Section 3(1)(f) the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency:

- a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation.
- b. To access and copy any records required by the permit.
- c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit.
- d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

**5. Emergencies/Enforcement Provisions**

- a. The permittee shall not use as defense in an enforcement action, the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing State-Origin Permits* incorporated by reference in 401 KAR 52:040 Section 23].
- b. An emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
  - (1) An emergency occurred and the permittee can identify the cause of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
  - (4) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency and included a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
- c. Emergency provisions listed in General Condition 5.b are in addition to any emergency or upset provision contained in an applicable requirement [401 KAR 52:040, Section 22(1)].
- d. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:040, Section 22(2)].

**SECTION C - GENERAL CONDITIONS (CONTINUED)****6. Compliance**

- a. Periodic testing or instrumental or non-instrumental monitoring, which may consist of record keeping, shall be performed to the extent necessary to yield reliable data for purposes of demonstration of continuing compliance with the conditions of this permit. Pursuant to 401 KAR 50:055, General compliance requirements, Section 2(5), all air pollution control equipment and all pollution control measures proposed by the application in response to which this permit is issued shall be in place, properly maintained, and in operation at any time an affected facility for which the equipment and measures are designed is operated, except as provided by 401 KAR 50:055, Section 1.
- b. Pursuant to 401 KAR 52:040, Section 19, the permittee shall certify compliance with the terms and conditions contained in this permit by January 30th of each year, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Regional Office listed on the front of this permit in accordance with the following requirements:
  - (1) Identification of the term or condition;
  - (2) Compliance status of each term or condition of the permit;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The method used for determining the compliance status for the source, currently and over the reporting period, and
  - (5) For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
  - (6) The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality London Regional Office 875 S. Main St. London, KY 40741	Division for Air Quality Central Files 200 Fair Oaks Lane, 1 <sup>st</sup> Floor Frankfort, KY 40601
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- c. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with all:
  - (1) Applicable requirements that are included and specifically identified in this permit; or
  - (2) Non-applicable requirements expressly identified in this permit [401 KAR 52:040, Section 11].